

Tetra Tech, Inc.
DATA VALIDATION REPORT
LEVEL II

Site: West Lake Landfill Site, Bridgeton, Missouri
Laboratory: TestAmerica Laboratories, Inc. (Knoxville, Tennessee)
Data Reviewer: Harry Ellis, Tetra Tech, Inc. (Tetra Tech)
Review Date August 20, 2014
Sample Delivery Group (SDG): J1775
Sample Numbers: WAA-01-SU-PS-20140731, WAA-02-SU-PS-20140731, WAA-03-SU-PS-20140731, WAA-04-SU-PS-20140731, WAA-04-SU-DU-20140731, WAA-05-SU-PS-20140731, and WAA-00-SU-TB-20140731
Matrix / Number of Samples: 5 Air Samples, 1 Field Duplicate Sample, and 1 Trip Blank

The data were qualified according to the U.S. Environmental Protection Agency (EPA) Region 7 documents entitled "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review" (9240.1-48), June 2008. In addition, the Tetra Tech document "Review of Data Packages from Subcontracted Laboratories" (February 2002) was used along with other criteria specified in the applicable methods.

The review was intended to identify problems and quality control (QC) deficiencies that were readily apparent from the summary data package. The following sections discuss any problems or deficiencies that were found, and data qualifications applied because of non-compliant QC. The data review was limited to the available field and laboratory QC information submitted with the project-specific data package.

I, Harry Ellis, certify that all data validation criteria outlined in the above-referenced documents were assessed, and any qualifications made to the data accorded with those documents.

Harry N. Ellis III

20 August 2014

Certified by Harry Ellis, Chemist

Date



DATA VALIDATION QUALIFIERS

- U** — The analyte was not detected above the reported sample quantitation limit.
- J** — The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** — The analyte was not detected above the reported sample quantitation limit, which is estimated.
- R** — The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. Presence or absence of the analyte cannot be verified.

DATA ASSESSMENT

Sample delivery group (SDG) J1775 included five (5) environmental air (passivated canister) samples and two (2) QC samples (a field duplicate and a trip blank). Samples were analyzed for volatile organic compounds via EPA Air Method TO-15. The following summarizes the data validation that was performed.

VOLATILE ORGANIC COMPOUND ANALYSIS

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory and analyzed within the established holding time of 30 days from sample collection by canister to analysis. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses are not practical for air analyses. Satisfactory LCS and field duplicate sample analysis provided adequate data on precision and accuracy. No qualifications were applied.

III. Blanks

The laboratory (method) blank yielded a low concentration of the common laboratory contaminant methylene chloride. The similar concentrations of methylene chloride in most other field samples were qualified as laboratory artifacts and flagged "U". The concentrations of methylene chloride in sample WAA-01-SU-PS-20140731 and sample WAA-04-SU-PS-20140731 and its field duplicate were higher, but less than 10 times the blank concentration. Therefore they were qualified as estimates, possibly biased high, and flagged "J".

IV. Laboratory Control Sample (LCS)

All percent recoveries from the LCS analysis were within established control limits. No qualifications were applied.

V. Surrogates

All surrogate recoveries were within QC limits. No qualifications were applied.

VI. Comments

Most detected results were less than reporting limits, which correspond to the lowest calibration standard. The laboratory correctly reported these extrapolations as estimated (flagged "J").

VII. Overall Assessment of Data

Overall data quality is acceptable, with few qualifications added. All data are usable as qualified for their intended purposes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Knoxville

5815 Middlebrook Pike

Knoxville, TN 37921

Tel: (865)291-3000

TestAmerica Job ID: 140-1775-1

Client Project/Site: West Lake Landfill

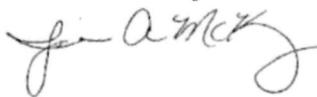
For:

Tetra Tech EM Inc.

415 Oak Street

Kansas City, Missouri 64106

Attn: Ms. Emily Fisher



Authorized for release by:

8/13/2014 8:35:51 AM

Jamie McKinney, Senior Project Manager

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
✓	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Job ID: 140-1775-1

Laboratory: TestAmerica Knoxville

Narrative

Job Narrative 140-1775-1

Comments

No additional comments.

Receipt

The samples were received on 8/5/2014 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA

Method(s) TO 14A, TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-01-SU-PS-20140731

Lab Sample ID: 140-1775-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.085	J	0.20	0.031	ppb v/v	1	TO-15		Total/NA
Benzene	0.13	J	0.20	0.056	ppb v/v	1	TO-15		Total/NA
Carbon tetrachloride	0.085	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloroform	0.11	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloromethane	0.51		0.50	0.16	ppb v/v	1	TO-15		Total/NA
Dichlorodifluoromethane	0.63		0.20	0.068	ppb v/v	1	TO-15		Total/NA
Methylene Chloride	0.64	B	0.50	0.13	ppb v/v	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.12	J	0.20	0.12	ppb v/v	1	TO-15		Total/NA
Tetrachloroethene	0.067	J	0.20	0.040	ppb v/v	1	TO-15		Total/NA
Toluene	0.23		0.20	0.12	ppb v/v	1	TO-15		Total/NA
Trichlorofluoromethane	0.28		0.20	0.024	ppb v/v	1	TO-15		Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.65	J	1.5	0.24	ug/m ³	1	TO-15		Total/NA
Benzene	0.41	J	0.64	0.18	ug/m ³	1	TO-15		Total/NA
Carbon tetrachloride	0.54	J	1.3	0.24	ug/m ³	1	TO-15		Total/NA
Chloroform	0.55	J	0.98	0.19	ug/m ³	1	TO-15		Total/NA
Chloromethane	1.1		1.0	0.33	ug/m ³	1	TO-15		Total/NA
Dichlorodifluoromethane	3.1		0.99	0.34	ug/m ³	1	TO-15		Total/NA
Methylene Chloride	2.2	B	1.7	0.45	ug/m ³	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.53	J	0.87	0.52	ug/m ³	1	TO-15		Total/NA
Tetrachloroethene	0.45	J	1.4	0.27	ug/m ³	1	TO-15		Total/NA
Toluene	0.85		0.75	0.45	ug/m ³	1	TO-15		Total/NA
Trichlorofluoromethane	1.6		1.1	0.13	ug/m ³	1	TO-15		Total/NA

Client Sample ID: WAA-02-SU-PS-20140731

Lab Sample ID: 140-1775-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.076	J	0.20	0.031	ppb v/v	1	TO-15		Total/NA
Benzene	0.11	J	0.20	0.056	ppb v/v	1	TO-15		Total/NA
Carbon tetrachloride	0.062	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloroethane	0.047	J	0.20	0.035	ppb v/v	1	TO-15		Total/NA
Chloroform	0.046	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloromethane	0.71		0.50	0.16	ppb v/v	1	TO-15		Total/NA
Dichlorodifluoromethane	0.45		0.20	0.068	ppb v/v	1	TO-15		Total/NA
Methylene Chloride	0.29	J B	0.50	0.13	ppb v/v	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.13	J	0.20	0.12	ppb v/v	1	TO-15		Total/NA
Toluene	0.31		0.20	0.12	ppb v/v	1	TO-15		Total/NA
Trichloroethene	0.040	J	0.20	0.036	ppb v/v	1	TO-15		Total/NA
Trichlorofluoromethane	0.22		0.20	0.024	ppb v/v	1	TO-15		Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.58	J	1.5	0.24	ug/m ³	1	TO-15		Total/NA
Benzene	0.35	J	0.64	0.18	ug/m ³	1	TO-15		Total/NA
Carbon tetrachloride	0.39	J	1.3	0.24	ug/m ³	1	TO-15		Total/NA
Chloroethane	0.12	J	0.53	0.092	ug/m ³	1	TO-15		Total/NA
Chloroform	0.22	J	0.98	0.19	ug/m ³	1	TO-15		Total/NA
Chloromethane	1.5		1.0	0.33	ug/m ³	1	TO-15		Total/NA
Dichlorodifluoromethane	2.2		0.99	0.34	ug/m ³	1	TO-15		Total/NA
Methylene Chloride	1.0	J B	1.7	0.45	ug/m ³	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.54	J	0.87	0.52	ug/m ³	1	TO-15		Total/NA
Toluene	1.2		0.75	0.45	ug/m ³	1	TO-15		Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-02-SU-PS-20140731 (Continued)

Lab Sample ID: 140-1775-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.22	J	1.1	0.19	ug/m3	1	TO-15		Total/NA
Trichlorofluoromethane	1.2		1.1	0.13	ug/m3	1	TO-15		Total/NA

Client Sample ID: WAA-03-SU-PS-20140731

Lab Sample ID: 140-1775-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.075	J	0.20	0.031	ppb v/v	1	TO-15		Total/NA
Benzene	0.11	J	0.20	0.056	ppb v/v	1	TO-15		Total/NA
Carbon tetrachloride	0.067	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloroform	0.046	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloromethane	0.42	J	0.50	0.16	ppb v/v	1	TO-15		Total/NA
Dichlorodifluoromethane	0.47		0.20	0.068	ppb v/v	1	TO-15		Total/NA
Methylene Chloride	0.35	J B	0.50	0.13	ppb v/v	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.13	J	0.20	0.12	ppb v/v	1	TO-15		Total/NA
Toluene	0.27		0.20	0.12	ppb v/v	1	TO-15		Total/NA
Trichlorofluoromethane	0.25		0.20	0.024	ppb v/v	1	TO-15		Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.58	J	1.5	0.24	ug/m3	1	TO-15		Total/NA
Benzene	0.37	J	0.64	0.18	ug/m3	1	TO-15		Total/NA
Carbon tetrachloride	0.42	J	1.3	0.24	ug/m3	1	TO-15		Total/NA
Chloroform	0.23	J	0.98	0.19	ug/m3	1	TO-15		Total/NA
Chloromethane	0.86	J	1.0	0.33	ug/m3	1	TO-15		Total/NA
Dichlorodifluoromethane	2.3		0.99	0.34	ug/m3	1	TO-15		Total/NA
Methylene Chloride	1.2	J B	1.7	0.45	ug/m3	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.58	J	0.87	0.52	ug/m3	1	TO-15		Total/NA
Toluene	1.0		0.75	0.45	ug/m3	1	TO-15		Total/NA
Trichlorofluoromethane	1.4		1.1	0.13	ug/m3	1	TO-15		Total/NA

Client Sample ID: WAA-04-SU-PS-20140731

Lab Sample ID: 140-1775-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.071	J	0.20	0.031	ppb v/v	1	TO-15		Total/NA
Benzene	0.11	J	0.20	0.056	ppb v/v	1	TO-15		Total/NA
Carbon tetrachloride	0.068	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloroform	0.050	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloromethane	0.45	J	0.50	0.16	ppb v/v	1	TO-15		Total/NA
Dichlorodifluoromethane	0.46		0.20	0.068	ppb v/v	1	TO-15		Total/NA
Methylene Chloride	0.54	B	0.50	0.13	ppb v/v	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.16	J	0.20	0.12	ppb v/v	1	TO-15		Total/NA
Toluene	0.32		0.20	0.12	ppb v/v	1	TO-15		Total/NA
Trichlorofluoromethane	0.26		0.20	0.024	ppb v/v	1	TO-15		Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.54	J	1.5	0.24	ug/m3	1	TO-15		Total/NA
Benzene	0.35	J	0.64	0.18	ug/m3	1	TO-15		Total/NA
Carbon tetrachloride	0.43	J	1.3	0.24	ug/m3	1	TO-15		Total/NA
Chloroform	0.25	J	0.98	0.19	ug/m3	1	TO-15		Total/NA
Chloromethane	0.93	J	1.0	0.33	ug/m3	1	TO-15		Total/NA
Dichlorodifluoromethane	2.3		0.99	0.34	ug/m3	1	TO-15		Total/NA
Methylene Chloride	1.9	B	1.7	0.45	ug/m3	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.70	J	0.87	0.52	ug/m3	1	TO-15		Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-04-SU-PS-20140731 (Continued)

Lab Sample ID: 140-1775-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.2		0.75	0.45	ug/m3	1	TO-15		Total/NA
Trichlorofluoromethane	1.5		1.1	0.13	ug/m3	1	TO-15		Total/NA

Client Sample ID: WAA-05-SU-PS-20140731

Lab Sample ID: 140-1775-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.070	J	0.20	0.031	ppb v/v	1	TO-15		Total/NA
Benzene	0.14	J	0.20	0.056	ppb v/v	1	TO-15		Total/NA
Carbon tetrachloride	0.064	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloroform	0.040	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloromethane	0.43	J	0.50	0.16	ppb v/v	1	TO-15		Total/NA
Dichlorodifluoromethane	0.47		0.20	0.068	ppb v/v	1	TO-15		Total/NA
Ethylbenzene	0.076	J	0.20	0.068	ppb v/v	1	TO-15		Total/NA
Methylene Chloride	0.41	J B	0.50	0.13	ppb v/v	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.18	J	0.20	0.12	ppb v/v	1	TO-15		Total/NA
o-Xylene	0.063	J	0.20	0.061	ppb v/v	1	TO-15		Total/NA
Styrene	0.13	J	0.20	0.058	ppb v/v	1	TO-15		Total/NA
Toluene	0.38		0.20	0.12	ppb v/v	1	TO-15		Total/NA
Trichloroethene	0.049	J	0.20	0.036	ppb v/v	1	TO-15		Total/NA
Trichlorofluoromethane	0.23		0.20	0.024	ppb v/v	1	TO-15		Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.53	J	1.5	0.24	ug/m3	1	TO-15		Total/NA
Benzene	0.45	J	0.64	0.18	ug/m3	1	TO-15		Total/NA
Carbon tetrachloride	0.40	J	1.3	0.24	ug/m3	1	TO-15		Total/NA
Chloroform	0.20	J	0.98	0.19	ug/m3	1	TO-15		Total/NA
Chloromethane	0.89	J	1.0	0.33	ug/m3	1	TO-15		Total/NA
Dichlorodifluoromethane	2.3		0.99	0.34	ug/m3	1	TO-15		Total/NA
Ethylbenzene	0.33	J	0.87	0.30	ug/m3	1	TO-15		Total/NA
Methylene Chloride	1.4	J B	1.7	0.45	ug/m3	1	TO-15		Total/NA
m-Xylene & p-Xylene	0.79	J	0.87	0.52	ug/m3	1	TO-15		Total/NA
o-Xylene	0.28	J	0.87	0.26	ug/m3	1	TO-15		Total/NA
Styrene	0.55	J	0.85	0.25	ug/m3	1	TO-15		Total/NA
Toluene	1.4		0.75	0.45	ug/m3	1	TO-15		Total/NA
Trichloroethene	0.27	J	1.1	0.19	ug/m3	1	TO-15		Total/NA
Trichlorofluoromethane	1.3		1.1	0.13	ug/m3	1	TO-15		Total/NA

Client Sample ID: WAA-04-SU-DU-20140731

Lab Sample ID: 140-1775-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.082	J	0.20	0.031	ppb v/v	1	TO-15		Total/NA
Benzene	0.067	J	0.20	0.056	ppb v/v	1	TO-15		Total/NA
Carbon tetrachloride	0.072	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloroform	0.049	J	0.20	0.038	ppb v/v	1	TO-15		Total/NA
Chloromethane	0.50		0.50	0.16	ppb v/v	1	TO-15		Total/NA
Dichlorodifluoromethane	0.49		0.20	0.068	ppb v/v	1	TO-15		Total/NA
Methylene Chloride	0.60	B	0.50	0.13	ppb v/v	1	TO-15		Total/NA
Trichlorofluoromethane	0.28		0.20	0.024	ppb v/v	1	TO-15		Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.63	J	1.5	0.24	ug/m3	1	TO-15		Total/NA
Benzene	0.21	J	0.64	0.18	ug/m3	1	TO-15		Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-04-SU-DU-20140731 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.45	J	1.3	0.24	ug/m3	1	TO-15		Total/NA
Chloroform	0.24	J	0.98	0.19	ug/m3	1	TO-15		Total/NA
Chloromethane	1.0		1.0	0.33	ug/m3	1	TO-15		Total/NA
Dichlorodifluoromethane	2.4		0.99	0.34	ug/m3	1	TO-15		Total/NA
Methylene Chloride	2.1	B	1.7	0.45	ug/m3	1	TO-15		Total/NA
Trichlorofluoromethane	1.6		1.1	0.13	ug/m3	1	TO-15		Total/NA

Client Sample ID: WAA-00-SU-TB-20140731

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.17	J B	0.50	0.13	ppb v/v	1	TO-15		Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.61	J B	1.7	0.45	ug/m3	1	TO-15		Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client: Tetra Tech EM Inc
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-01-SU-PS-20140731

Lab Sample ID: 140-1775-1

Date Collected: 07/31/14 09:58

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			08/07/14 03:00	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			08/07/14 03:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.085	J	0.20	0.031	ppb v/v			08/07/14 03:00	1
ne									
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			08/07/14 03:00	1
1,1-Dichloroethane	ND		0.20	0.028	ppb v/v			08/07/14 03:00	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			08/07/14 03:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			08/07/14 03:00	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			08/07/14 03:00	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			08/07/14 03:00	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			08/07/14 03:00	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			08/07/14 03:00	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			08/07/14 03:00	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			08/07/14 03:00	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			08/07/14 03:00	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			08/07/14 03:00	1
Benzene	0.13	J	0.20	0.056	ppb v/v			08/07/14 03:00	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			08/07/14 03:00	1
Bromomethane	ND		0.20	0.032	ppb v/v			08/07/14 03:00	1
Carbon tetrachloride	0.085	J	0.20	0.038	ppb v/v			08/07/14 03:00	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			08/07/14 03:00	1
Chloroethane	ND		0.20	0.035	ppb v/v			08/07/14 03:00	1
Chloroform	0.11	J	0.20	0.038	ppb v/v			08/07/14 03:00	1
Chloromethane	0.51		0.50	0.16	ppb v/v			08/07/14 03:00	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			08/07/14 03:00	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			08/07/14 03:00	1
Dichlorodifluoromethane	0.63		0.20	0.068	ppb v/v			08/07/14 03:00	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			08/07/14 03:00	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			08/07/14 03:00	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			08/07/14 03:00	1
Methylene Chloride	0.64	- J	0.50	0.13	ppb v/v			08/07/14 03:00	1
m-Xylene & p-Xylene	0.12	J	0.20	0.12	ppb v/v			08/07/14 03:00	1
o-Xylene	ND		0.20	0.061	ppb v/v			08/07/14 03:00	1
Styrene	ND		0.20	0.058	ppb v/v			08/07/14 03:00	1
Tetrachloroethene	0.067	J	0.20	0.040	ppb v/v			08/07/14 03:00	1
Toluene	0.23		0.20	0.12	ppb v/v			08/07/14 03:00	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			08/07/14 03:00	1
Trichloroethene	ND		0.20	0.036	ppb v/v			08/07/14 03:00	1
Trichlorofluoromethane	0.28		0.20	0.024	ppb v/v			08/07/14 03:00	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			08/07/14 03:00	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			08/07/14 03:00	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			08/07/14 03:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.65	J	1.5	0.24	ug/m3			08/07/14 03:00	1
ne									
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			08/07/14 03:00	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			08/07/14 03:00	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			08/07/14 03:00	1

HVG 28 August 2014

TestAmerica Knoxville

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-01-SU-PS-20140731

Lab Sample ID: 140-1775-1

Date Collected: 07/31/14 09:58

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			08/07/14 03:00	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			08/07/14 03:00	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			08/07/14 03:00	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			08/07/14 03:00	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			08/07/14 03:00	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			08/07/14 03:00	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			08/07/14 03:00	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			08/07/14 03:00	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			08/07/14 03:00	1
Benzene	0.41 J		0.64	0.18	ug/m3			08/07/14 03:00	1
Benzyl chloride	ND		2.1	0.40	ug/m3			08/07/14 03:00	1
Bromomethane	ND		0.78	0.12	ug/m3			08/07/14 03:00	1
Carbon tetrachloride	0.54 J		1.3	0.24	ug/m3			08/07/14 03:00	1
Chlorobenzene	ND		0.92	0.23	ug/m3			08/07/14 03:00	1
Chloroethane	ND		0.53	0.092	ug/m3			08/07/14 03:00	1
Chloroform	0.55 J		0.98	0.19	ug/m3			08/07/14 03:00	1
Chloromethane	1.1		1.0	0.33	ug/m3			08/07/14 03:00	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			08/07/14 03:00	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			08/07/14 03:00	1
Dichlorodifluoromethane	3.1		0.99	0.34	ug/m3			08/07/14 03:00	1
Ethylbenzene	ND		0.87	0.30	ug/m3			08/07/14 03:00	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			08/07/14 03:00	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			08/07/14 03:00	1
Methylene Chloride	2.2 J		1.7	0.45	ug/m3			08/07/14 03:00	1
m-Xylene & p-Xylene	0.53 J		0.87	0.52	ug/m3			08/07/14 03:00	1
o-Xylene	ND		0.87	0.26	ug/m3			08/07/14 03:00	1
Styrene	ND		0.85	0.25	ug/m3			08/07/14 03:00	1
Tetrachloroethene	0.45 J		1.4	0.27	ug/m3			08/07/14 03:00	1
Toluene	0.85		0.75	0.45	ug/m3			08/07/14 03:00	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			08/07/14 03:00	1
Trichloroethene	ND		1.1	0.19	ug/m3			08/07/14 03:00	1
Trichlorofluoromethane	1.6		1.1	0.13	ug/m3			08/07/14 03:00	1
Vinyl chloride	ND		0.51	0.18	ug/m3			08/07/14 03:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Sum)	104		60 - 140					08/07/14 03:00	1

Client Sample ID: WAA-02-SU-PS-20140731

Lab Sample ID: 140-1775-2

Date Collected: 07/31/14 09:04

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			08/06/14 15:45	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			08/06/14 15:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.076 J		0.20	0.031	ppb v/v			08/06/14 15:45	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			08/06/14 15:45	1

HNG 2P Aug 14

TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-02-SU-PS-20140731

Lab Sample ID: 140-1775-2

Date Collected: 07/31/14 09:04

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			08/06/14 15:45	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			08/06/14 15:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			08/06/14 15:45	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			08/06/14 15:45	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			08/06/14 15:45	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			08/06/14 15:45	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			08/06/14 15:45	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			08/06/14 15:45	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			08/06/14 15:45	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			08/06/14 15:45	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			08/06/14 15:45	1
Benzene	0.11 J		0.20	0.056	ppb v/v			08/06/14 15:45	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			08/06/14 15:45	1
Bromomethane	ND		0.20	0.032	ppb v/v			08/06/14 15:45	1
Carbon tetrachloride	0.062 J		0.20	0.038	ppb v/v			08/06/14 15:45	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			08/06/14 15:45	1
Chloroethane	0.047 J		0.20	0.035	ppb v/v			08/06/14 15:45	1
Chloroform	0.046 J		0.20	0.038	ppb v/v			08/06/14 15:45	1
Chloromethane	0.71		0.50	0.16	ppb v/v			08/06/14 15:45	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			08/06/14 15:45	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			08/06/14 15:45	1
Dichlorodifluoromethane	0.45		0.20	0.068	ppb v/v			08/06/14 15:45	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			08/06/14 15:45	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			08/06/14 15:45	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			08/06/14 15:45	1
Methylene Chloride	-0.29 J B		0.50	0.13	ppb v/v			08/06/14 15:45	1
m-Xylene & p-Xylene	0.13 J		0.20	0.12	ppb v/v			08/06/14 15:45	1
o-Xylene	ND		0.20	0.061	ppb v/v			08/06/14 15:45	1
Styrene	ND		0.20	0.058	ppb v/v			08/06/14 15:45	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			08/06/14 15:45	1
Toluene	0.31		0.20	0.12	ppb v/v			08/06/14 15:45	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			08/06/14 15:45	1
Trichloroethene	0.040 J		0.20	0.036	ppb v/v			08/06/14 15:45	1
Trichlorofluoromethane	0.22		0.20	0.024	ppb v/v			08/06/14 15:45	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			08/06/14 15:45	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			08/06/14 15:45	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			08/06/14 15:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.58 J		1.5	0.24	ug/m3			08/06/14 15:45	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			08/06/14 15:45	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			08/06/14 15:45	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			08/06/14 15:45	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			08/06/14 15:45	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			08/06/14 15:45	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			08/06/14 15:45	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			08/06/14 15:45	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			08/06/14 15:45	1

HWF 28 Aug 14

TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-02-SU-PS-20140731

Lab Sample ID: 140-1775-2

Date Collected: 07/31/14 09:04

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			08/06/14 15 45	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			08/06/14 15 45	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			08/06/14 15 45	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			08/06/14 15 45	1
Benzene	0.35 J		0.84	0.18	ug/m3			08/06/14 15 45	1
Benzyl chloride	ND		2 1	0.40	ug/m3			08/06/14 15 45	1
Bromomethane	ND		0.78	0.12	ug/m3			08/06/14 15 45	1
Carbon tetrachloride	0.39 J		1.3	0.24	ug/m3			08/06/14 15:45	1
Chlorobenzene	ND		0.92	0.23	ug/m3			08/06/14 15:45	1
Chloroethane	0.12 J		0.53	0.092	ug/m3			08/06/14 15:45	1
Chloroform	0.22 J		0.98	0.19	ug/m3			08/06/14 15:45	1
Chloromethane	1.5		1.0	0.33	ug/m3			08/06/14 15:45	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			08/06/14 15:45	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			08/06/14 15:45	1
Dichlorodifluoromethane	2.2		0.99	0.34	ug/m3			08/06/14 15:45	1
Ethylbenzene	ND		0.87	0.30	ug/m3			08/06/14 15:45	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			08/06/14 15:45	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			08/06/14 15:45	1
Methylene Chloride	1.0 JB - U		1.7	0.45	ug/m3			08/06/14 15:45	1
m-Xylene & p-Xylene	0.54 J		0.87	0.52	ug/m3			08/06/14 15:45	1
o-Xylene	ND		0.87	0.26	ug/m3			08/06/14 15:45	1
Styrene	ND		0.85	0.25	ug/m3			08/06/14 15:45	1
Tetrachloroethylene	ND		1.4	0.27	ug/m3			08/06/14 15:45	1
Toluene	1.2		0.75	0.45	ug/m3			08/06/14 15:45	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			08/06/14 15:45	1
Trichloroethene	0.22 J		1.1	0.19	ug/m3			08/06/14 15:45	1
Trichlorofluoromethane	1.2		1.1	0.13	ug/m3			08/06/14 15:45	1
Vinyl chloride	ND		0.51	0.18	ug/m3			08/06/14 15:45	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Sur)	98			60 - 140				08/06/14 15:45	1

Client Sample ID: WAA-03-SU-PS-20140731

Lab Sample ID: 140-1775-3

Date Collected: 07/31/14 09:33

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			08/06/14 16 36	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			08/06/14 16 36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.075 J		0.20	0.031	ppb v/v			08/06/14 16 36	1
ne									
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			08/06/14 16 36	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			08/06/14 16 36	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			08/06/14 16 36	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			08/06/14 16 36	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			08/06/14 16 36	1
1,2-Dichloro-1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			08/06/14 16 36	1

HUE 24 Aug 14

TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-03-SU-PS-20140731

Lab Sample ID: 140-1775-3

Date Collected: 07/31/14 09:33

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			08/06/14 16:36	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			08/06/14 16:36	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			08/06/14 16:36	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			08/06/14 16:36	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			08/06/14 16:36	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			08/06/14 16:36	1
Benzene	0.11 J		0.20	0.056	ppb v/v			08/06/14 16:36	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			08/06/14 16:36	1
Bromomethane	ND		0.20	0.032	ppb v/v			08/06/14 16:36	1
Carbon tetrachloride	0.067 J		0.20	0.038	ppb v/v			08/06/14 16:36	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			08/06/14 16:36	1
Chloroethane	ND		0.20	0.035	ppb v/v			08/06/14 16:36	1
Chloroform	0.046 J		0.20	0.038	ppb v/v			08/06/14 16:36	1
Chloromethane	0.42 J		0.50	0.16	ppb v/v			08/06/14 16:36	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			08/06/14 16:36	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			08/06/14 16:36	1
Dichlorodifluoromethane	0.47		0.20	0.068	ppb v/v			08/06/14 16:36	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			08/06/14 16:36	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			08/06/14 16:36	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			08/06/14 16:36	1
Methylene Chloride	0.35 J B 4		0.50	0.13	ppb v/v			08/06/14 16:36	1
m-Xylene & p-Xylene	0.13 J		0.20	0.12	ppb v/v			08/06/14 16:36	1
o-Xylene	ND		0.20	0.061	ppb v/v			08/06/14 16:36	1
Styrene	ND		0.20	0.058	ppb v/v			08/06/14 16:36	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			08/06/14 16:36	1
Toluene	0.27		0.20	0.12	ppb v/v			08/06/14 16:36	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			08/06/14 16:36	1
Trichloroethene	ND		0.20	0.036	ppb v/v			08/06/14 16:36	1
Trichlorofluoromethane	0.25		0.20	0.024	ppb v/v			08/06/14 16:36	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			08/06/14 16:36	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m ³			08/06/14 16:36	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m ³			08/06/14 16:36	1
1,1,2-Trichloro-1,2,2-trifluoroetha ne	0.58 J		1.5	0.24	ug/m ³			08/06/14 16:36	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m ³			08/06/14 16:36	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m ³			08/06/14 16:36	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m ³			08/06/14 16:36	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m ³			08/06/14 16:36	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m ³			08/06/14 16:36	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m ³			08/06/14 16:36	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m ³			08/06/14 16:36	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m ³			08/06/14 16:36	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m ³			08/06/14 16:36	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m ³			08/06/14 16:36	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m ³			08/06/14 16:36	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m ³			08/06/14 16:36	1
Benzene	0.37 J		0.64	0.18	ug/m ³			08/06/14 16:36	1

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TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-03-SU-PS-20140731

Lab Sample ID: 140-1775-3

Date Collected: 07/31/14 09:33

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	ND		2.1	0.40	ug/m3			08/06/14 16:36	1
Bromomethane	ND		0.78	0.12	ug/m3			08/06/14 16:36	1
Carbon tetrachloride	0.42 J		1.3	0.24	ug/m3			08/06/14 16:36	1
Chlorobenzene	ND		0.92	0.23	ug/m3			08/06/14 16:36	1
Chloroethane	ND		0.53	0.092	ug/m3			08/06/14 16:36	1
Chloroform	0.23 J		0.98	0.19	ug/m3			08/06/14 16:36	1
Chloromethane	0.86 J		1.0	0.33	ug/m3			08/06/14 16:36	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			08/06/14 16:36	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			08/06/14 16:36	1
Dichlorodifluoromethane	2.3		0.99	0.34	ug/m3			08/06/14 16:36	1
Ethylbenzene	ND		0.87	0.30	ug/m3			08/06/14 16:36	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			08/06/14 16:36	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			08/06/14 16:36	1
Methylene Chloride	1.2 J-B- U		1.7	0.45	ug/m3			08/06/14 16:36	1
m-Xylene & p-Xylene	0.58 J		0.87	0.52	ug/m3			08/06/14 16:36	1
o-Xylene	ND		0.87	0.26	ug/m3			08/06/14 16:36	1
Styrene	ND		0.85	0.25	ug/m3			08/06/14 16:36	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			08/06/14 16:36	1
Toluene	1.0		0.76	0.45	ug/m3			08/06/14 16:36	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			08/06/14 16:36	1
Trichloroethene	ND		1.1	0.19	ug/m3			08/06/14 16:36	1
Trichlorofluoromethane	1.4		1.1	0.13	ug/m3			08/06/14 16:36	1
Vinyl chloride	ND		0.51	0.18	ug/m3			08/06/14 16:36	1
Surrogate		%Recovery			Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Sum)		100			60 - 140			08/06/14 16:36	1

Client Sample ID: WAA-04-SU-PS-20140731

Lab Sample ID: 140-1775-4

Date Collected: 07/31/14 09:45

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			08/06/14 17:27	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			08/06/14 17:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.071 J		0.20	0.031	ppb v/v			08/06/14 17:27	1
ne									
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			08/06/14 17:27	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			08/06/14 17:27	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			08/06/14 17:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			08/06/14 17:27	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			08/06/14 17:27	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			08/06/14 17:27	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			08/06/14 17:27	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			08/06/14 17:27	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			08/06/14 17:27	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			08/06/14 17:27	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			08/06/14 17:27	1

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TestAmerica Knoxville

Client Sample ID: WAA-04-SU-PS-20140731

Lab Sample ID: 140-1775-4

Date Collected: 07/31/14 09:45

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			08/06/14 17:27	1
Benzene	0.11 J		0.20	0.056	ppb v/v			08/06/14 17:27	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			08/06/14 17:27	1
Bromomethane	ND		0.20	0.032	ppb v/v			08/06/14 17:27	1
Carbon tetrachloride	0.068 J		0.20	0.038	ppb v/v			08/06/14 17:27	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			08/06/14 17:27	1
Chloroethane	ND		0.20	0.035	ppb v/v			08/06/14 17:27	1
Chloroform	0.050 J		0.20	0.038	ppb v/v			08/06/14 17:27	1
Chloromethane	0.45 J		0.50	0.16	ppb v/v			08/06/14 17:27	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			08/06/14 17:27	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			08/06/14 17:27	1
Dichlorodifluoromethane	0.46		0.20	0.068	ppb v/v			08/06/14 17:27	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			08/06/14 17:27	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			08/06/14 17:27	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			08/06/14 17:27	1
Methylene Chloride	0.54 B-2		0.50	0.13	ppb v/v			08/06/14 17:27	1
m-Xylene & p-Xylene	0.16 J		0.20	0.12	ppb v/v			08/06/14 17:27	1
o-Xylene	ND		0.20	0.061	ppb v/v			08/06/14 17:27	1
Styrene	ND		0.20	0.058	ppb v/v			08/06/14 17:27	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			08/06/14 17:27	1
Toluene	0.32		0.20	0.12	ppb v/v			08/06/14 17:27	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			08/06/14 17:27	1
Trichloroethene	ND		0.20	0.036	ppb v/v			08/06/14 17:27	1
Trichlorofluoromethane	0.26		0.20	0.024	ppb v/v			08/06/14 17:27	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			08/06/14 17:27	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m ³			08/06/14 17:27	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m ³			08/06/14 17:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.54 J		1.5	0.24	ug/m ³			08/06/14 17:27	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m ³			08/06/14 17:27	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m ³			08/06/14 17:27	1
1,1-Dichloroethene	ND		0.78	0.13	ug/m ³			08/06/14 17:27	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m ³			08/06/14 17:27	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m ³			08/06/14 17:27	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m ³			08/06/14 17:27	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m ³			08/06/14 17:27	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m ³			08/06/14 17:27	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m ³			08/06/14 17:27	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m ³			08/06/14 17:27	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m ³			08/06/14 17:27	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m ³			08/06/14 17:27	1
Benzene	0.35 J		0.64	0.18	ug/m ³			08/06/14 17:27	1
Benzyl chloride	ND		2.1	0.40	ug/m ³			08/06/14 17:27	1
Bromomethane	ND		0.78	0.12	ug/m ³			08/06/14 17:27	1
Carbon tetrachloride	0.43 J		1.3	0.24	ug/m ³			08/06/14 17:27	1
Chlorobenzene	ND		0.92	0.23	ug/m ³			08/06/14 17:27	1
Chloroethane	ND		0.53	0.092	ug/m ³			08/06/14 17:27	1

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TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-04-SU-PS-20140731

Lab Sample ID: 140-1775-4

Date Collected: 07/31/14 09:45

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.25	J	0.98	0.19	ug/m3		08/06/14 17:27		1
Chloromethane	0.93	J	1.0	0.33	ug/m3		08/06/14 17:27		1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3		08/06/14 17:27		1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3		08/06/14 17:27		1
Dichlorodifluoromethane	2.3		0.99	0.34	ug/m3		08/06/14 17:27		1
Ethylbenzene	ND		0.87	0.30	ug/m3		08/06/14 17:27		1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3		08/06/14 17:27		1
Hexachlorobutadiene	ND		11	0.83	ug/m3		08/06/14 17:27		1
Methylene Chloride	1.9	J	1.7	0.45	ug/m3		08/06/14 17:27		1
m-Xylene & p-Xylene	0.70	J	0.87	0.52	ug/m3		08/06/14 17:27		1
o-Xylene	ND		0.87	0.26	ug/m3		08/06/14 17:27		1
Styrene	ND		0.85	0.25	ug/m3		08/06/14 17:27		1
Tetrachloroethene	ND		1.4	0.27	ug/m3		08/06/14 17:27		1
Toluene	1.2		0.75	0.45	ug/m3		08/06/14 17:27		1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3		08/06/14 17:27		1
Trichloroethene	ND		1.1	0.19	ug/m3		08/06/14 17:27		1
Trichlorofluoromethane	1.5		1.1	0.13	ug/m3		08/06/14 17:27		1
Vinyl chloride	ND		0.51	0.18	ug/m3		08/06/14 17:27		1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Sur)	101		60 - 140				08/06/14 17:27		1

Client Sample ID: WAA-05-SU-PS-20140731

Lab Sample ID: 140-1775-5

Date Collected: 07/31/14 09:13

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v		08/06/14 18:16		1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v		08/06/14 18:16		1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.070	J	0.20	0.031	ppb v/v		08/06/14 18:16		1
ne									
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v		08/06/14 18:16		1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v		08/06/14 18:16		1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v		08/06/14 18:16		1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v		08/06/14 18:16		1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v		08/06/14 18:16		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v		08/06/14 18:16		1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v		08/06/14 18:16		1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v		08/06/14 18:16		1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v		08/06/14 18:16		1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v		08/06/14 18:16		1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v		08/06/14 18:16		1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v		08/06/14 18:16		1
Benzene	0.14	J	0.20	0.056	ppb v/v		08/06/14 18:16		1
Benzyl chloride	ND		0.40	0.078	ppb v/v		08/06/14 18:16		1
Bromomethane	ND		0.20	0.032	ppb v/v		08/06/14 18:16		1
Carbon tetrachloride	0.064	J	0.20	0.038	ppb v/v		08/06/14 18:16		1

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TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-05-SU-PS-20140731

Lab Sample ID: 140-1775-5

Date Collected: 07/31/14 09:13

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.20	0.049	ppb v/v			08/06/14 18:16	1
Chloroethane	ND		0.20	0.035	ppb v/v			08/06/14 18:16	1
Chloroform	0.040 J		0.20	0.038	ppb v/v			08/06/14 18:16	1
Chloromethane	0.43 J		0.50	0.16	ppb v/v			08/06/14 18:16	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			08/06/14 18:16	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			08/06/14 18:16	1
Dichlorodifluoromethane	0.47		0.20	0.068	ppb v/v			08/06/14 18:16	1
Ethylbenzene	0.076 J		0.20	0.068	ppb v/v			08/06/14 18:16	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			08/06/14 18:16	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			08/06/14 18:16	1
Methylene Chloride	0.41 J-B ✓	0.50		0.13	ppb v/v			08/06/14 18:16	1
m-Xylene & p-Xylene	0.18 J		0.20	0.12	ppb v/v			08/06/14 18:16	1
o-Xylene	0.063 J		0.20	0.061	ppb v/v			08/06/14 18:16	1
Styrene	0.13 J		0.20	0.058	ppb v/v			08/06/14 18:16	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			08/06/14 18:16	1
Toluene	0.38		0.20	0.12	ppb v/v			08/06/14 18:16	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			08/06/14 18:16	1
Trichloroethene	0.049 J		0.20	0.036	ppb v/v			08/06/14 18:16	1
Trichlorofluoromethane	0.23		0.20	0.024	ppb v/v			08/06/14 18:16	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			08/06/14 18:16	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m ³			08/06/14 18:16	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m ³			08/06/14 18:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.53 J		1.5	0.24	ug/m ³			08/06/14 18:16	1
ne									
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m ³			08/06/14 18:16	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m ³			08/06/14 18:16	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m ³			08/06/14 18:16	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m ³			08/06/14 18:16	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m ³			08/06/14 18:16	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m ³			08/06/14 18:16	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m ³			08/06/14 18:16	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m ³			08/06/14 18:16	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m ³			08/06/14 18:16	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m ³			08/06/14 18:16	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m ³			08/06/14 18:16	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m ³			08/06/14 18:16	1
Benzene	0.45 J		0.64	0.18	ug/m ³			08/06/14 18:16	1
Benzyl chloride	ND		2.1	0.40	ug/m ³			08/06/14 18:16	1
Bromomethane	ND		0.78	0.12	ug/m ³			08/06/14 18:16	1
Carbon tetrachloride	0.40 J		1.3	0.24	ug/m ³			08/06/14 18:16	1
Chlorobenzene	ND		0.92	0.23	ug/m ³			08/06/14 18:16	1
Chloroethane	ND		0.53	0.092	ug/m ³			08/06/14 18:16	1
Chloroform	0.20 J		0.98	0.19	ug/m ³			08/06/14 18:16	1
Chloromethane	0.89 J		1.0	0.33	ug/m ³			08/06/14 18:16	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m ³			08/06/14 18:16	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m ³			08/06/14 18:16	1
Dichlorodifluoromethane	2.3		0.99	0.34	ug/m ³			08/06/14 18:16	1

HUG 29 Aug 14

TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-05-SU-PS-20140731

Lab Sample ID: 140-1775-5

Date Collected: 07/31/14 09:13

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.33	J	0.87	0.30	ug/m3		08/06/14 18:16		1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3		08/06/14 18:16		1
Hexachlorobutadiene	ND		11	0.83	ug/m3		08/06/14 18:16		1
Methylene Chloride	1.4	J	1.7	0.45	ug/m3		08/06/14 18:16		1
m-Xylene & p-Xylene	0.79	J	0.87	0.52	ug/m3		08/06/14 18:16		1
o-Xylene	0.28	J	0.87	0.26	ug/m3		08/06/14 18:16		1
Styrene	0.55	J	0.85	0.25	ug/m3		08/06/14 18:16		1
Tetrachloroethylene	ND		1.4	0.27	ug/m3		08/06/14 18:16		1
Toluene	1.4		0.75	0.45	ug/m3		08/06/14 18:16		1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3		08/06/14 18:16		1
Trichloroethylene	0.27	J	1.1	0.19	ug/m3		08/06/14 18:16		1
Trichlorofluoromethane	1.3		1.1	0.13	ug/m3		08/06/14 18:16		1
Vinyl chloride	ND		0.51	0.18	ug/m3		08/06/14 18:16		1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Sur)		102		60 - 140			08/06/14 18:16		1

Client Sample ID: WAA-04-SU-DU-20140731

Lab Sample ID: 140-1775-6

Date Collected: 07/31/14 09:47

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v		08/06/14 19:09		1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v		08/06/14 19:09		1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.082	J	0.20	0.031	ppb v/v		08/06/14 19:09		1
ne									
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v		08/06/14 19:09		1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v		08/06/14 19:09		1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v		08/06/14 19:09		1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v		08/06/14 19:09		1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v		08/06/14 19:09		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v		08/06/14 19:09		1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v		08/06/14 19:09		1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v		08/06/14 19:09		1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v		08/06/14 19:09		1
1,3,5 Trimethylbenzene	ND		0.20	0.065	ppb v/v		08/06/14 19:09		1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v		08/06/14 19:09		1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v		08/06/14 19:09		1
Benzene	0.067	J	0.20	0.058	ppb v/v		08/06/14 19:09		1
Benzyl chloride	ND		0.40	0.078	ppb v/v		08/06/14 19:09		1
Bromomethane	ND		0.20	0.032	ppb v/v		08/06/14 19:09		1
Carbon tetrachloride	0.072	J	0.20	0.038	ppb v/v		08/06/14 19:09		1
Chlorobenzene	ND		0.20	0.049	ppb v/v		08/06/14 19:09		1
Chloroethane	ND		0.20	0.035	ppb v/v		08/06/14 19:09		1
Chloroform	0.049	J	0.20	0.038	ppb v/v		08/06/14 19:09		1
Chloromethane	0.50		0.50	0.16	ppb v/v		08/06/14 19:09		1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v		08/06/14 19:09		1

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TestAmerica Knoxville

Client Sample Results

Client Tetra Tech EM Inc
Project/Site West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-04-SU-DU-20140731

Lab Sample ID: 140-1775-6

Date Collected: 07/31/14 09:47

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			08/06/14 19:09	1
Dichlorodifluoromethane	0.49		0.20	0.068	ppb v/v			08/06/14 19:09	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			08/06/14 19:09	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			08/06/14 19:09	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			08/06/14 19:09	1
Methylene Chloride	0.60 S J		0.50	0.13	ppb v/v			08/06/14 19:09	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			08/06/14 19:09	1
o-Xylene	ND		0.20	0.061	ppb v/v			08/06/14 19:09	1
Styrene	ND		0.20	0.058	ppb v/v			08/06/14 19:09	1
Tetrachloroethylene	ND		0.20	0.040	ppb v/v			08/06/14 19:09	1
Toluene	ND		0.20	0.12	ppb v/v			08/06/14 19:09	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			08/06/14 19:09	1
Trichloroethylene	ND		0.20	0.036	ppb v/v			08/06/14 19:09	1
Trichlorofluoromethane	0.28		0.20	0.024	ppb v/v			08/06/14 19:09	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			08/06/14 19:09	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m ³			08/06/14 19:09	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m ³			08/06/14 19:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.63 J		1.5	0.24	ug/m ³			08/06/14 19:09	1
ne									
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m ³			08/06/14 19:09	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m ³			08/06/14 19:09	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m ³			08/06/14 19:09	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m ³			08/06/14 19:09	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m ³			08/06/14 19:09	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m ³			08/06/14 19:09	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m ³			08/06/14 19:09	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m ³			08/06/14 19:09	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m ³			08/06/14 19:09	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m ³			08/06/14 19:09	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m ³			08/06/14 19:09	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m ³			08/06/14 19:09	1
Benzene	0.21 J		0.64	0.18	ug/m ³			08/06/14 19:09	1
Benzyl chloride	ND		2.1	0.40	ug/m ³			08/06/14 19:09	1
Bromomethane	ND		0.78	0.12	ug/m ³			08/06/14 19:09	1
Carbon tetrachloride	0.45 J		1.3	0.24	ug/m ³			08/06/14 19:09	1
Chlorobenzene	ND		0.92	0.23	ug/m ³			08/06/14 19:09	1
Chloroethane	ND		0.53	0.092	ug/m ³			08/06/14 19:09	1
Chloroform	0.24 J		0.98	0.19	ug/m ³			08/06/14 19:09	1
Chloromethane	1.0		1.0	0.33	ug/m ³			08/06/14 19:09	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m ³			08/06/14 19:09	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m ³			08/06/14 19:09	1
Dichlorodifluoromethane	2.4		0.99	0.34	ug/m ³			08/06/14 19:09	1
Ethylbenzene	ND		0.87	0.30	ug/m ³			08/06/14 19:09	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m ³			08/06/14 19:09	1
Hexachlorobutadiene	ND		11	0.83	ug/m ³			08/06/14 19:09	1
Methylene Chloride	2.1 S J		1.7	0.45	ug/m ³			08/06/14 19:09	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m ³			08/06/14 19:09	1

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TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-04-SU-DU-20140731

Lab Sample ID: 140-1775-6

Date Collected: 07/31/14 09:47

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.87	0.28	ug/m3			08/06/14 19:09	
Styrene	ND		0.85	0.25	ug/m3			08/06/14 19:09	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			08/06/14 19:09	1
Toluene	ND		0.75	0.45	ug/m3			08/06/14 19:09	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			08/06/14 19:09	1
Trichloroethene	ND		1.1	0.19	ug/m3			08/06/14 19:09	1
Trichlorofluoromethane	1.6		1.1	0.13	ug/m3			08/06/14 19:09	1
Vinyl chloride	ND		0.51	0.18	ug/m3			08/06/14 19:09	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		101		60 - 140				08/06/14 19:09	1

Client Sample ID: WAA-00-SU-TB-20140731

Lab Sample ID: 140-1775-7

Date Collected: 07/31/14 09:58

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			08/06/14 20:02	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			08/06/14 20:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			08/06/14 20:02	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			08/06/14 20:02	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			08/06/14 20:02	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			08/06/14 20:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			08/06/14 20:02	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			08/06/14 20:02	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			08/06/14 20:02	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			08/06/14 20:02	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			08/06/14 20:02	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			08/06/14 20:02	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			08/06/14 20:02	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			08/06/14 20:02	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			08/06/14 20:02	1
Benzene	ND		0.20	0.056	ppb v/v			08/06/14 20:02	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			08/06/14 20:02	1
Bromomethane	ND		0.20	0.032	ppb v/v			08/06/14 20:02	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			08/06/14 20:02	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			08/06/14 20:02	1
Chloroethane	ND		0.20	0.035	ppb v/v			08/06/14 20:02	1
Chloroform	ND		0.20	0.038	ppb v/v			08/06/14 20:02	1
Chloromethane	ND		0.50	0.16	ppb v/v			08/06/14 20:02	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			08/06/14 20:02	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			08/06/14 20:02	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			08/06/14 20:02	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			08/06/14 20:02	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			08/06/14 20:02	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			08/06/14 20:02	1
Methylene Chloride	ND		0.50	0.13	ppb v/v			08/06/14 20:02	1

HUG 29 Aug 14

TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-00-SU-TB-20140731

Lab Sample ID: 140-1775-7

Date Collected: 07/31/14 09:58

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			08/06/14 20:02	1
o-Xylene	ND		0.20	0.061	ppb v/v			08/06/14 20:02	1
Styrene	ND		0.20	0.058	ppb v/v			08/06/14 20:02	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			08/06/14 20:02	1
Toluene	ND		0.20	0.12	ppb v/v			08/06/14 20:02	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			08/06/14 20:02	1
Trichloroethene	ND		0.20	0.036	ppb v/v			08/06/14 20:02	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			08/06/14 20:02	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			08/06/14 20:02	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m ³			08/06/14 20:02	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m ³			08/06/14 20:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m ³			08/06/14 20:02	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m ³			08/06/14 20:02	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m ³			08/06/14 20:02	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m ³			08/06/14 20:02	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m ³			08/06/14 20:02	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m ³			08/06/14 20:02	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m ³			08/06/14 20:02	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m ³			08/06/14 20:02	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m ³			08/06/14 20:02	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m ³			08/06/14 20:02	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m ³			08/06/14 20:02	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m ³			08/06/14 20:02	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m ³			08/06/14 20:02	1
Benzene	ND		0.64	0.18	ug/m ³			08/06/14 20:02	1
Benzyl chloride	ND		2.1	0.40	ug/m ³			08/06/14 20:02	1
Bromomethane	ND		0.78	0.12	ug/m ³			08/06/14 20:02	1
Carbon tetrachloride	ND		1.3	0.24	ug/m ³			08/06/14 20:02	1
Chlorobenzene	ND		0.92	0.23	ug/m ³			08/06/14 20:02	1
Chloroethane	ND		0.53	0.092	ug/m ³			08/06/14 20:02	1
Chloroform	ND		0.98	0.19	ug/m ³			08/06/14 20:02	1
Chloromethane	ND		1.0	0.33	ug/m ³			08/06/14 20:02	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m ³			08/06/14 20:02	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m ³			08/06/14 20:02	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m ³			08/06/14 20:02	1
Ethylbenzene	ND		0.87	0.30	ug/m ³			08/06/14 20:02	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m ³			08/06/14 20:02	1
Hexachlorobuladiene	ND		11	0.83	ug/m ³			08/06/14 20:02	1
Methylene Chloride	0.61	J-B C	1.7	0.45	ug/m ³			08/06/14 20:02	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m ³			08/06/14 20:02	1
o-Xylene	ND		0.87	0.26	ug/m ³			08/06/14 20:02	1
Styrene	ND		0.85	0.25	ug/m ³			08/06/14 20:02	1
Tetrachloroethene	ND		1.4	0.27	ug/m ³			08/06/14 20:02	1
Toluene	ND		0.75	0.45	ug/m ³			08/06/14 20:02	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m ³			08/06/14 20:02	1
Trichloroethene	ND		1.1	0.19	ug/m ³			08/06/14 20:02	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m ³			08/06/14 20:02	1

HWE 20 Aug 14

TestAmerica Knoxville

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-00-SU-TB-20140731

Lab Sample ID: 140-1775-7

Date Collected: 07/31/14 09:58

Matrix: Air

Date Received: 08/05/14 10:00

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.51	0.18	ug/m3			08/06/14 20:02	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Sur)	104		60 - 140					08/06/14 20:02	1

HVG

24 Aug 14

TestAmerica Knoxville

Surrogate Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
140-1775-1	WAA-01-SU-PS-20140731	104
140-1775-2	WAA-02-SU-PS-20140731	98
140-1775-3	WAA-03-SU-PS-20140731	100
140-1775-4	WAA-04-SU-PS-20140731	101
140-1775-5	WAA-05-SU-PS-20140731	102
140-1775-6	WAA-04-SU-DU-20140731	101
140-1775-7	WAA-00-SU-TB-20140731	104
LCS 140-1564/1002	Lab Control Sample	108
MB 140-1564/5	Method Blank	101

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-1564/5

Matrix: Air

Analysis Batch: 1564

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane			ND		0.20	0.030	ppb v/v			08/06/14 12:23	1
1,1,2,2-Tetrachloroethane			ND		0.20	0.061	ppb v/v			08/06/14 12:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane			ND		0.20	0.031	ppb v/v			08/06/14 12:23	1
1,1,2-Trichloroethane			ND		0.20	0.054	ppb v/v			08/06/14 12:23	1
1,1-Dichloroethane			ND		0.20	0.026	ppb v/v			08/06/14 12:23	1
1,1-Dichloroethene			ND		0.20	0.034	ppb v/v			08/06/14 12:23	1
1,2,4-Trichlorobenzene			ND		1.0	0.098	ppb v/v			08/06/14 12:23	1
1,2,4-Trimethylbenzene			ND		0.20	0.063	ppb v/v			08/06/14 12:23	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane			ND		0.20	0.032	ppb v/v			08/06/14 12:23	1
1,2-Dichlorobenzene			ND		0.20	0.070	ppb v/v			08/06/14 12:23	1
1,2-Dichloroethane			ND		0.20	0.047	ppb v/v			08/06/14 12:23	1
1,2-Dichloropropane			ND		0.20	0.052	ppb v/v			08/06/14 12:23	1
1,3,5-Trimethylbenzene			ND		0.20	0.065	ppb v/v			08/06/14 12:23	1
1,3-Dichlorobenzene			ND		0.20	0.065	ppb v/v			08/06/14 12:23	1
1,4-Dichlorobenzene			ND		0.20	0.064	ppb v/v			08/06/14 12:23	1
Benzene			ND		0.20	0.056	ppb v/v			08/06/14 12:23	1
Benzyl chloride			ND		0.40	0.078	ppb v/v			08/06/14 12:23	1
Bromomethane			ND		0.20	0.032	ppb v/v			08/06/14 12:23	1
Carbon tetrachloride			ND		0.20	0.038	ppb v/v			08/06/14 12:23	1
Chlorobenzene			ND		0.20	0.049	ppb v/v			08/06/14 12:23	1
Chloroethane			ND		0.20	0.035	ppb v/v			08/06/14 12:23	1
Chloroform			ND		0.20	0.038	ppb v/v			08/06/14 12:23	1
Chloromethane			ND		0.50	0.16	ppb v/v			08/06/14 12:23	1
cis-1,2-Dichloroethene			ND		0.20	0.060	ppb v/v			08/06/14 12:23	1
cis-1,3-Dichloropropene			ND		0.20	0.074	ppb v/v			08/06/14 12:23	1
Dichlorodifluoromethane			ND		0.20	0.068	ppb v/v			08/06/14 12:23	1
Ethylbenzene			ND		0.20	0.068	ppb v/v			08/06/14 12:23	1
1,2-Dibromoethane (EDB)			ND		0.20	0.044	ppb v/v			08/06/14 12:23	1
Hexachlorobutadiene			ND		1.0	0.078	ppb v/v			08/06/14 12:23	1
Methylene Chloride	0.156	J			0.50	0.13	ppb v/v			08/06/14 12:23	1
m-Xylene & p-Xylene			ND		0.20	0.12	ppb v/v			08/06/14 12:23	1
o-Xylene			ND		0.20	0.061	ppb v/v			08/06/14 12:23	1
Styrene			ND		0.20	0.058	ppb v/v			08/06/14 12:23	1
Tetrachloroethene			ND		0.20	0.040	ppb v/v			08/06/14 12:23	1
Toluene			ND		0.20	0.12	ppb v/v			08/06/14 12:23	1
trans-1,3-Dichloropropene			ND		0.20	0.048	ppb v/v			08/06/14 12:23	1
Trichloroethene			ND		0.20	0.036	ppb v/v			08/06/14 12:23	1
Trichlorofluoromethane			ND		0.20	0.024	ppb v/v			08/06/14 12:23	1
Vinyl chloride			ND		0.20	0.071	ppb v/v			08/06/14 12:23	1
Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane			ND		1.1	0.16	ug/m ³			08/06/14 12:23	1
1,1,2,2-Tetrachloroethane			ND		1.4	0.42	ug/m ³			08/06/14 12:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane			ND		1.5	0.24	ug/m ³			08/06/14 12:23	1
1,1,2-Trichloroethane			ND		1.1	0.29	ug/m ³			08/06/14 12:23	1
1,1-Dichloroethane			ND		0.81	0.11	ug/m ³			08/06/14 12:23	1
1,1-Dichloroethene			ND		0.79	0.13	ug/m ³			08/06/14 12:23	1
1,2,4-Trichlorobenzene			ND		7.4	0.73	ug/m ³			08/06/14 12:23	1

TestAmerica Knoxville

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-1564/5

Client Sample ID: Method Blank
Prep Type: Total/NA

Matrix: Air

Analysis Batch: 1564

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			08/06/14 12:23	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			08/06/14 12:23	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			08/06/14 12:23	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			08/06/14 12:23	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			08/06/14 12:23	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			08/06/14 12:23	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			08/06/14 12:23	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			08/06/14 12:23	1
Benzene	ND		0.64	0.18	ug/m3			08/06/14 12:23	1
Benzyl chloride	ND		2.1	0.40	ug/m3			08/06/14 12:23	1
Bromomethane	ND		0.78	0.12	ug/m3			08/06/14 12:23	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			08/06/14 12:23	1
Chlorobenzene	ND		0.92	0.23	ug/m3			08/06/14 12:23	1
Chloroethane	ND		0.53	0.092	ug/m3			08/06/14 12:23	1
Chloroform	ND		0.98	0.19	ug/m3			08/06/14 12:23	1
Chloromethane	ND		1.0	0.33	ug/m3			08/06/14 12:23	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			08/06/14 12:23	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			08/06/14 12:23	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			08/06/14 12:23	1
Ethylbenzene	ND		0.87	0.30	ug/m3			08/06/14 12:23	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			08/06/14 12:23	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			08/06/14 12:23	1
Methylene Chloride	0.541	J	1.7	0.45	ug/m3			08/06/14 12:23	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			08/06/14 12:23	1
o-Xylene	ND		0.87	0.26	ug/m3			08/06/14 12:23	1
Styrene	ND		0.85	0.25	ug/m3			08/06/14 12:23	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			08/06/14 12:23	1
Toluene	ND		0.75	0.45	ug/m3			08/06/14 12:23	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			08/06/14 12:23	1
Trichloroethene	ND		1.1	0.19	ug/m3			08/06/14 12:23	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			08/06/14 12:23	1
Vinyl chloride	ND		0.51	0.18	ug/m3			08/06/14 12:23	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Sur)	101		60 - 140			1

Lab Sample ID: LCS 140-1564/1002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Air

Analysis Batch: 1564

Analyte	Spike	LCS			%Rec.		
	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	2.00	2.44		ppb v/v	122	70 - 130	
1,1,2,2-Tetrachloroethane	2.00	2.14		ppb v/v	107	70 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.51		ppb v/v	125	70 - 130	
1,1,2-Trichloroethane	2.00	2.01		ppb v/v	100	70 - 130	
1,1-Dichloroethane	2.00	2.30		ppb v/v	115	70 - 130	
1,1-Dichloroethene	2.00	2.38		ppb v/v	119	70 - 130	

TestAmerica Knoxville

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-1564/1002

Matrix: Air

Analysis Batch: 1564

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2,4-Trichlorobenzene	2.00	1.98		ppb v/v	99	60 - 140		
1,2,4-Trimethylbenzene	2.00	2.34		ppb v/v	117	70 - 130		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.20		ppb v/v	110	60 - 140		
1,2-Dichlorobenzene	2.00	2.14		ppb v/v	107	70 - 130		
1,2-Dichloroethane	2.00	2.30		ppb v/v	115	70 - 130		
1,2-Dichloropropane	2.00	1.94		ppb v/v	97	70 - 130		
1,3,5-Trimethylbenzene	2.00	2.22		ppb v/v	111	70 - 130		
1,3-Dichlorobenzene	2.00	2.14		ppb v/v	107	70 - 130		
1,4-Dichlorobenzene	2.00	2.16		ppb v/v	108	70 - 130		
Benzene	2.00	1.94		ppb v/v	97	70 - 130		
Benzyl chloride	2.00	2.41		ppb v/v	120	70 - 130		
Bromomethane	2.00	1.84		ppb v/v	92	70 - 130		
Carbon tetrachloride	2.00	2.48		ppb v/v	124	70 - 130		
Chlorobenzene	2.00	2.05		ppb v/v	102	70 - 130		
Chloroethane	2.00	1.91		ppb v/v	96	70 - 130		
Chloroform	2.00	2.34		ppb v/v	117	70 - 130		
Chloromethane	2.00	1.78		ppb v/v	89	60 - 140		
cis-1,2-Dichloroethene	2.00	2.27		ppb v/v	114	70 - 130		
cis-1,3-Dichloropropene	2.00	2.17		ppb v/v	108	70 - 130		
Dichlorodifluoromethane	2.00	2.33		ppb v/v	116	60 - 140		
Ethylbenzene	2.00	2.31		ppb v/v	116	70 - 130		
1,2-Dibromoethane (EDB)	2.00	2.13		ppb v/v	106	70 - 130		
Hexachlorobutadiene	2.00	2.25		ppb v/v	112	60 - 140		
Methylene Chloride	2.00	2.24		ppb v/v	112	70 - 130		
m-Xylene & p-Xylene	4.00	4.73		ppb v/v	118	70 - 130		
o-Xylene	2.00	2.25		ppb v/v	113	70 - 130		
Styrene	2.00	2.26		ppb v/v	113	70 - 130		
Tetrachloroethene	2.00	2.09		ppb v/v	105	70 - 130		
Toluene	2.00	2.08		ppb v/v	104	70 - 130		
trans-1,3-Dichloropropene	2.00	2.23		ppb v/v	112	70 - 130		
Trichloroethene	2.00	2.00		ppb v/v	100	70 - 130		
Trichlorofluoromethane	2.00	2.36		ppb v/v	118	60 - 140		
Vinyl chloride	2.00	1.76		ppb v/v	88	70 - 130		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1,1-Trichloroethane	11	13.3		ug/m3	122	70 - 130		
1,1,2,2-Tetrachloroethane	14	14.7		ug/m3	107	70 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	15	19.2		ug/m3	125	70 - 130		
1,1,2-Trichloroethane	11	11.0		ug/m3	100	70 - 130		
1,1-Dichloroethane	8.1	9.29		ug/m3	115	70 - 130		
1,1-Dichloroethene	7.9	9.44		ug/m3	119	70 - 130		
1,2,4-Trichlorobenzene	15	14.7		ug/m3	99	60 - 140		
1,2,4-Trimethylbenzene	9.8	11.5		ug/m3	117	70 - 130		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	15.3		ug/m3	110	60 - 140		
1,2-Dichlorobenzene	12	12.9		ug/m3	107	70 - 130		
1,2-Dichloroethane	8.1	9.30		ug/m3	115	70 - 130		

TestAmerica Knoxville

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-1564/1002

Matrix: Air

Analysis Batch: 1564

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2-Dichloropropane	9.2	8.95		ug/m3		97	70 - 130	
1,3,5-Trimethylbenzene	9.8	10.9		ug/m3		111	70 - 130	
1,3-Dichlorobenzene	12	12.9		ug/m3		107	70 - 130	
1,4-Dichlorobenzene	12	13.0		ug/m3		108	70 - 130	
Benzene	6.4	6.21		ug/m3		97	70 - 130	
Benzyl chloride	10	12.5		ug/m3		120	70 - 130	
Bromomethane	7.8	7.15		ug/m3		92	70 - 130	
Carbon tetrachloride	13	15.6		ug/m3		124	70 - 130	
Chlorobenzene	9.2	9.42		ug/m3		102	70 - 130	
Chloroethane	5.3	5.04		ug/m3		96	70 - 130	
Chloroform	9.8	11.4		ug/m3		117	70 - 130	
Chloromethane	4.1	3.67		ug/m3		89	60 - 140	
cis-1,2-Dichloroethene	7.9	9.01		ug/m3		114	70 - 130	
cis-1,3-Dichloropropene	9.1	9.84		ug/m3		108	70 - 130	
Dichlorodifluoromethane	9.9	11.5		ug/m3		116	60 - 140	
Ethylbenzene	8.7	10.0		ug/m3		116	70 - 130	
1,2-Dibromoethane (EDB)	15	16.4		ug/m3		106	70 - 130	
Hexachlorobutadiene	21	24.0		ug/m3		112	60 - 140	
Methylene Chloride	6.9	7.79		ug/m3		112	70 - 130	
m-Xylene & p-Xylene	17	20.5		ug/m3		118	70 - 130	
o-Xylene	8.7	9.78		ug/m3		113	70 - 130	
Styrene	8.5	9.61		ug/m3		113	70 - 130	
Tetrachloroethene	14	14.2		ug/m3		105	70 - 130	
Toluene	7.5	7.82		ug/m3		104	70 - 130	
trans-1,3-Dichloropropene	9.1	10.1		ug/m3		112	70 - 130	
Trichloroethene	11	10.7		ug/m3		100	70 - 130	
Trichlorofluoromethane	11	13.3		ug/m3		118	60 - 140	
Vinyl chloride	5.1	4.51		ug/m3		88	70 - 130	
Surrogate		LCS	LCS					
		%Recovery	Qualifier					
4-Bromofluorobenzene (Sur)		108						60 - 140

TestAmerica Knoxville

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Air - GC/MS VOA

Analysis Batch: 1564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-1775-1	WAA-01-SU-PS-20140731	Total/NA	Air	TO-15	
140-1775-2	WAA-02-SU-PS-20140731	Total/NA	Air	TO-15	
140-1775-3	WAA-03-SU-PS-20140731	Total/NA	Air	TO-15	
140-1775-4	WAA-04-SU-PS-20140731	Total/NA	Air	TO-15	
140-1775-5	WAA-05-SU-PS-20140731	Total/NA	Air	TO-15	
140-1775-6	WAA-04-SU-DU-20140731	Total/NA	Air	TO-15	
140-1775-7	WAA-00-SU-TB-20140731	Total/NA	Air	TO-15	
LCS 140-1564/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-1564/5	Method Blank	Total/NA	Air	TO-15	

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TestAmerica Knoxville

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-01-SU-PS-20140731

Date Collected: 07/31/14 09:58

Date Received: 08/05/14 10:00

Lab Sample ID: 140-1775-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1564	08/07/14 03:00	HMT	TAL KNX

Instrument ID: ME

Client Sample ID: WAA-02-SU-PS-20140731

Date Collected: 07/31/14 09:04

Date Received: 08/05/14 10:00

Lab Sample ID: 140-1775-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1564	08/06/14 15:45	HMT	TAL KNX

Instrument ID: ME

Client Sample ID: WAA-03-SU-PS-20140731

Date Collected: 07/31/14 09:33

Date Received: 08/05/14 10:00

Lab Sample ID: 140-1775-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1564	08/06/14 16:36	HMT	TAL KNX

Instrument ID: ME

Client Sample ID: WAA-04-SU-PS-20140731

Date Collected: 07/31/14 09:45

Date Received: 08/05/14 10:00

Lab Sample ID: 140-1775-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1564	08/06/14 17:27	HMT	TAL KNX

Instrument ID: ME

Client Sample ID: WAA-05-SU-PS-20140731

Date Collected: 07/31/14 09:13

Date Received: 08/05/14 10:00

Lab Sample ID: 140-1775-5

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1564	08/06/14 18:16	HMT	TAL KNX

Instrument ID: ME

Client Sample ID: WAA-04-SU-DU-20140731

Date Collected: 07/31/14 09:47

Date Received: 08/05/14 10:00

Lab Sample ID: 140-1775-6

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1564	08/06/14 19:09	HMT	TAL KNX

Instrument ID: ME

TestAmerica Knoxville

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Client Sample ID: WAA-00-SU-TB-20140731

Lab Sample ID: 140-1775-7

Date Collected: 07/31/14 09:58

Matrix: Air

Date Received: 08/05/14 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1564	08/06/14 20:02	HMT	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

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TestAmerica Knoxville

Certification Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		N/A	
Arkansas DEQ	State Program	6	88-0688	06-17-15
California	State Program	9	2423	06-30-16
Colorado	State Program	8	N/A	02-28-15
Connecticut	State Program	1	PH-0223	09-30-15
Florida	NELAP	4	E87177	06-30-15
Georgia	State Program	4	906	04-13-17
Hawaii	State Program	9	N/A	04-13-15
Kansas	NELAP	7	E-10349	10-31-14
Kentucky (DW)	State Program	4	90101	12-31-14
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	LA110001	12-31-14
Maryland	State Program	3	277	03-31-15
Michigan	State Program	5	9933	04-13-17
Nevada	State Program	9	TN00009	07-31-15
New Jersey	NELAP	2	TN001	06-30-15
New York	NELAP	2	10781	03-31-15
North Carolina (DW)	State Program	4	21705	07-31-15
North Carolina (WW/SW)	State Program	4	64	12-31-14
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-31-14
Pennsylvania	NELAP	3	68-00576	12-31-14
South Carolina	State Program	4	84001	06-30-14 *
Tennessee	State Program	4	2014	04-13-17
Texas	NELAP	6	T104704380-TX	08-31-14
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-15
Virginia	NELAP	3	460176	09-14-14
Virginia	State Program	3	165	06-30-15
Washington	State Program	10	C593	01-19-15
West Virginia (DW)	State Program	3	9955C	12-31-14
West Virginia DEP	State Program	3	345	04-30-15
Wisconsin	State Program	5	998044300	08-31-14

* Certification renewal pending - certification considered valid.

TestAmerica Knoxville

Method Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

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Sample Summary

Client: Tetra Tech EM Inc.
Project/Site: West Lake Landfill

TestAmerica Job ID: 140-1775-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-1775-1	WAA-01-SU-PS-20140731	Air	07/31/14 09:58	08/05/14 10:00
140-1775-2	WAA-02-SU-PS-20140731	Air	07/31/14 09:04	08/05/14 10:00
140-1775-3	WAA-03-SU-PS-20140731	Air	07/31/14 09:33	08/05/14 10:00
140-1775-4	WAA-04-SU-PS-20140731	Air	07/31/14 09:45	08/05/14 10:00
140-1775-5	WAA-05-SU-PS-20140731	Air	07/31/14 09:13	08/05/14 10:00
140-1775-6	WAA-04-SU-DU-20140731	Air	07/31/14 09:47	08/05/14 10:00
140-1775-7	WAA-00-SU-TB-20140731	Air	07/31/14 09:58	08/05/14 10:00

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TestAmerica Knoxville

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information		Project Manager: Dave Kinroth		Samples Collected By: Dave Kinroth								COC No:		
Company Name: Tetra Tech Inc.	Phone: 314-517-6798									1 of 1 COCs				
Address: 415 Oak Street	Email: emily.fisher@tetratech.com													
City/State/Zip: Kansas City, MO 64106														
Phone: 816-412-1755	Site Contact: Dave Kinroth - 314-517-6787													
FAX: 816-410-1748	TA Contact: Emily Fisher/Rob Monnig													
Project Name: West Lake Landfill	Analysis Turnaround Time													
Site/Location: Bridgeton, MO	Standard (Specific): 10 days													
P O # 1105352	Rush (Specify):													
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)' Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-16 (Med / Std / Low / SM) MA-APH	EPA 3C	EPA 26C / 25.3 ASTM D-1948 / 1945 / 3688	EPA 15/16	TO-3	Other (Please specify in notes section) Sample Type	Ambient Air Soil Gas Landfill Gas Other (Please specify in notes section)	Sample Specific Notes:
WAA-01-SU-PS-20140731	7/30/14-7/31/14	11:32	9:58	-29.2 -4.5	09950	10039	X						X	Received at ambient No custody seal
WAA-02-SU-PS-20140731	7/30/14-7/31/14	10:52	9:04	-29.2 -3.0	10878	10585	X						X	2 boxes
WAA-03-SU-PS-20140731	7/30/14-7/31/14	11:13	9:33	-29.3 -5.5	10447	10516	X						X	KL 8/5/14
WAA-04-SU-PS-20140731	7/30/14-7/31/14	11:22	9:45	-29.1 -3.0	09846	10555	X						X	Fedex PO
WAA-05-SU-PS-20140731	7/30/14-7/31/14	11:02	9:13	-29.2 -4.0	10146	10374	X						X	#K#599 0208 4688
WAA-04-SU-DU-20140731	7/30/14-7/31/14	11:22	9:47	-29.2 -2.0	09553	10266	X						X	" " " 4677
WAA-00-SU-TB-20140731	7/30/14-7/31/14	10:52	9:58	-29.2 -29.2	10349	10182	X						X	
Temperature (Fahrenheit)														
140-1775 Chain of Custody	Interior		Ambient											
	Start			81										
Stop			70											
Pressure (inches of Hg)														
140-1775 Chain of Custody	Interior		Ambient											
	Start			30.02										
Stop			30.15											
Special Instructions/QC Requirements & Comments:														
Samples Shipped by: <i>Joe Clarke</i>	Date / Time: 8-4-14 / 1445			Samples Received by: <i>Joe Clarke TSL</i> 8-4-14 1445			7 cans							
Samples Relinquished by: <i>Joe Clarke</i>	Date / Time: 8-4-14 1500			Received by: <i>Ken Wilson</i> 8/5/14 1000			7 flow							
Relinquished by:	Date / Time:			Received by:			7 cc							
Lab Use Only:	Shipper Name:		Opened by:	Condition:										

Login Sample Receipt Checklist

Client: Tetra Tech EM Inc.

Job Number: 140-1775-1

Login Number: 1775

List Source: TestAmerica Knoxville

List Number: 1

Creator: Wilson, Ken

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	N/A	This is checked in the lab.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G1